REMARKS/ARGUMENTS

Claims 1-25 were previously pending in the application. Claims 1, 7, 13, and 25 are amended herein, and claims 26-35 are added herein. Claims 1-35 are now pending in the application. The Applicant hereby requests further examination and reconsideration of the application in view of the foregoing amendments and these remarks.

In paragraph 1, the Examiner rejected claim 7 under 35 U.S.C. § 112, second paragraph, as being indefinite for lacking antecedent basis. In response, the Applicant has amended claim 7 to depend from claim 6. The Applicant submits therefore that the rejection of claim 7 under § 112, second paragraph, has been overcome.

In paragraph 3, the Examiner rejected claims 1-3, 5, 13-15, and 17 under 35 U.S.C. § 102(b) as being anticipated by Kayanuma, U.S. Patent No. 5,561,647 ("Kayanuma"). In paragraph 5, the Examiner rejected claims 11, 23, and 25 under 35 U.S.C. § 103(a) as obvious over Kayanuma. In paragraph 6, the Examiner rejected claims 10, 12, 22, and 24 under 35 U.S.C. § 103(a) as obvious over Kayanuma in view of Bulow, U.S. Patent No. 6,016,379 ("Bulow").

For the following reasons, the Applicant submits that claims 1-3, 5, 13-15, and 17 are allowable over Kayanuma and Bulow.

Kayanuma discloses a system for detection of signals read out from an optical disc (col. 1, lines 6-10). The system of Kayanuma comprises an optical disc, an optical head, an equalizer, a maximum-likelihood sequence detection circuit, and a controller (col. 2, lines 17-35). The optical disc is for storing information in accordance with run-length limited codes having no fewer than two minimum intervals of transition (*Id.*). The optical head is for reading a signal from the optical disc (*Id.*). The equalizer is for equalizing the signal read from the optical disc (*Id.*). The maximum-likelihood sequence detection circuit is for detecting a signal sequence to be supplied to an output terminal (*Id.*). The signal sequence is selected from signal sequences meeting a predetermined state transition regularity and is the sequence most coincident to the signal equalized in the equalizer (*Id.*). The controller is for controlling the equalizer to equalize the signal read from the optical disc, only when an error signal is detected in a vicinity of an end of a region having a code transition interval of more than a predetermined number (*Id.*).

Bulow discloses an electrical equalizer and equalization method for an electric input signal that is derived from an optical signal that has been transmitted over an optical fiber and is distorted due to interference in the optical signal (Abst.; col. 1, lines 9-15). The method of Bulow comprises determining the quality of the distorted output signal, determining at least one set of equalization parameters as a function of at least two arbitrarily assumed interference parameters which characterize the interference

from which the distortion results, with the number of interference parameters being less than the number of equalization parameters of the at least one set, and then varying the interference parameters, and thus the equalization parameters of the at least one set, until the quality of the equalized output signal is optimized (col. 2, lines 9-19).

Claim 1, as amended, recites "an apparatus for applying compensation to samples received from an optical channel comprising at least one optical fiber" (emphasis supplied). The apparatus comprises, *inter alia*, "an error generator generating an error for a current sample based on the difference between 1) an equalized current sample and 2) a decision for the current sample adjusted for a target response, wherein the target response is based on a response of the at least one optical fiber" (emphasis supplied). While Kayanuma relates, generally, to optical systems, Kayanuma is non-analogous art, as the teachings of Kayanuma are limited to the readout of signals from optical discs. As such, the optical channel of Kayanuma does not comprise an optical fiber. In fact, nowhere within the four corners of Kayanuma do the terms "fiber" or "fibre" appear. Accordingly, nowhere does Kayanuma teach, disclose, or suggest that a decision for a current sample be adjusted for a target response that is based on the response of an optical fiber. Since Kayanuma does not teach each and every element of claim 1, it cannot be said that Kayanuma anticipates claim 1.

Bulow fails to supply the missing teachings. While Bulow relates, generally, to the equalization of an electric input signal that is derived from an optical signal, Bulow does not teach, disclose, or suggest that a decision for a current sample be adjusted for a target response that is based on the response of an optical fiber. Thus, no combination of Kayanuma and Bulow could render obvious claim 1, nor any claims dependent therefrom. Moreover, as discussed above, since Kayanuma is non-analogous art, a skilled person concerned with the equalization of an electric signal derived from an optical signal transmitted over an optical fiber, as in the case of Bulow, would not have turned to Kayanuma for guidance. Consequently, Kayanuma and Bulow cannot properly be combined to render obvious any of the Applicant's claims.

For the foregoing reasons, the Applicant submits that claim 1 is allowable over Kayanuma. For similar reasons, the Applicant submits that claims 13 and 25 are also allowable over Kayanuma. Since the remaining claims depend variously from claims 1, 13, and 25, it is further submitted that those claims are also allowable over Kayanuma. The Applicant submits therefore that the rejections of claims under §§ 102 and 103 have been overcome.

In paragraph 7, the Examiner objected to claims 4, 6, 8, 9, 16, and 18-21 as being dependent upon a rejected base claim, but indicated that those claims would be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims.

In paragraph 8, the Examiner stated that claim 7 would be allowable if rewritten or amended to overcome the rejection under § 112, second paragraph.

The Applicant notes the indicated allowability of claims 4, 6-9, 16, and 18-21. Accordingly, claims 4, 6, 8, 9, 16, 18, 20, and 21 have been rewritten in independent form as new claims 26, 27, 29, 30, 31, 32, 34, and 35. Dependent claims 7 and 19 have been rewritten as new claims 28 and 33, respectively, which depend from new claims 27 and 32, respectively. All of new claims 26-35 are now believed to be in condition for allowance.

In view of the above amendments and remarks, the Applicant respectfully submits that all of the now-pending claims are in condition for allowance.

Therefore, the Applicant believes that the entire application is now in condition for allowance, and early and favorable action is respectfully solicited.

Respectfully submitted,

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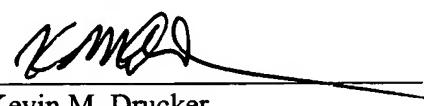
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